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TEKIA.004A

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	:	Blake, et al.	Group Art Unit 3732
Appl. No.	:	10/056,971	
Filed	:	January 25, 2002	
For	:	TWO-PART "L"-or "S"-SHAPED PHAKIC IOL	
Examiner	:	Unknown	

I hereby certify that this correspondence and all marked attachments are being deposited with the United States Postal Service as first-class mail in an envelope addressed to: United States Patent and Trademark Office, PO Box 2327, Arlington VA 22202, on

May 24, 2002
(Date)

Jennifer A Haynes, Ph D, Registration No. 48,868

PRELIMINARY AMENDMENT

United States Patent and Trademark Office
PO Box 2327
Arlington, VA 22202

Dear Sir:

Preliminary to Examination on the merits, please amend the above-identified patent application as follows:

IN THE SPECIFICATION

Please replace the last paragraph on page 9, starting on line 22-27 with the following:

--Other traits which are advantageous for a posterior chamber haptic include the haptic frame angling or vaulting backward instead of forward. The vaulting allows for a safer fit within the eye, reduces the possibility of the lens touching the tissue of the eye and reduces the chances that the haptic feet will obstruct the eyelet/cleat attachment. The vault 180, as shown in Figure 14 could be from about 0.02 mm to about 1.0 mm as required for the patient, including 0.05, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, and 0.9mm. The 2 to 4 mm (small) capsulorhexis 28 incision in the posterior chamber 18 of the capsule 21 is shown for phakoemulsification of the diseased lens.

Please replace the last paragraph on page 20, starting on line 25 and continuing through page 21, with the following paragraph:

05/31/2002 NMOHAMM1 00000122 10056971
01 FC:203 18.00 OP

05/31/2002 NMOHAMM1 00000122 10056971
02 FC:215 55.00 OP

--An alternative embodiment of the IOL is shown in Figures 14-19. This embodiment is advantageously designed to fit into the posterior chamber 18 of the eye as shown in Figure 14. However, the IOL may also be suitable for use in the anterior chamber 16 of the eye. In this embodiment, "V" shaped includes 2 members that come together at less than 90° even if there is a third member and in this regard including a curved "V" or a "U" or a "C". With reference to Figure 15A-C, the separable multi-part IOL arranged and configured in accordance with certain features, aspects and advantages of the present invention will be described in detail. Figure 15 is a plan view of three embodiments of the thin frame haptic 110 of the plural part IOL 10. With reference to FIG. 15A, in this embodiment the thin frame haptic 110 includes at least two flexible support members 190. The thin frame/haptic 110 comprises at least two areas which come in contact with the eye tissue. The two feet 121 and multiple flexible support members 190 are arranged in an approximate forward or backward "S"-shape with at least one rounded "V"-shape. By "V" shape, it is envisioned that there is at least one "corner" or "angle" alpha (α) which is as great as 90° or less, but preferably from about 15 to 50°, more preferably between 30 and 45° (angular degrees), however, the corners may be rounded up to and including a "C" shape. In addition, there is at least one lens mounting member 150 which is structurally immobilized and produces, when paired with a flexible support member 190, a rounded "V"-shaped structure. It is envisioned that the flexible support member 190 can function as a lens mounting member 150, allowing the lens to be attached directly to the flexible support member 190. The combination of the flexible support member 190 with the lens mounting member 150, produces a rounded "V"-shaped structure, the arms of which can be flexed during insertion through an incision in the eye 1. The arms of the rounded "V" shaped structure can include one flexible support member 190 and one lens mounting member 150, two flexible support members 190 or mixtures of the two. The flexible, rounded "V" shaped structure allows the haptic 110 to be inserted into a very small incision by bending the haptic elements (or arms) and, more specifically, by bending the flexible support member 190 of the "V"-shaped structure, up to or over, the structurally immobilized lens mounting member 150. However, the lens may also be snaked or moved into the eye without flexing the support members 190. The maximum dimension of each section along the length of the haptic 110, when bent, is less than the incision. The haptic can be temporarily bent up to about 1 to about 1.5 mm or up to about 3 mm as the frame is passed through the incision.

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IN THE CLAIMS

Please insert the following claims:

220. **(New)** The multipart intraocular lens of Claim 1, wherein said optic is composed of a low modulus material.

221. **(New)** The multipart intraocular lens of Claim 1, wherein said haptic is composed of a high modulus material.

REMARKS

The claims have been amended to more clearly claim the invention. Support for Claims 220 and 221 can be found in the Specification on page 13, lines 20-27 in which low modulus and high modulus materials are disclosed. The Specification has been amended to conform with the numbering on the Figures.

The changes made to the claims by the current amendment, including **[deletions]** and additions, are shown on an attached sheet entitled **VERSION WITH MARKINGS TO SHOW CHANGES MADE**, which follows the signature page of this Amendment.

Conclusion

Should there be any questions regarding the above-identified patent application, the Examiner is respectfully requested to contact the undersigned at the telephone number appearing below. Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: May 24, 2002

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

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Please replace the last paragraph on page 20, starting on line 25 and continuing through page 21, with the following paragraph:

--An alternative embodiment of the IOL is shown in Figures 14-19. This embodiment is advantageously designed to fit into the posterior chamber **[15]**18 of the eye as shown in Figure 14. However, the IOL may also be suitable for use in the anterior chamber 16 of the eye. In this embodiment, "V" shaped includes 2 members that come together at less than 90° even if there is a third member and in this regard including a curved "V" or a "U" or a "C". With reference to Figure 15A-C, the separable multi-part IOL arranged and configured in accordance with certain features, aspects and advantages of the present invention will be described in detail. Figure 15 is a plan view of three embodiments of the thin frame haptic 110 of the plural part IOL 10. With reference to FIG. 15A, in this embodiment the thin frame haptic 110 includes at least two flexible support members 190. The thin frame/haptic 110 comprises at least two areas which come in contact with the eye tissue. The two feet 121 and multiple flexible support members 190 are arranged in an approximate forward or backward "S"-shape with at least one rounded "V"-shape. By "V" shape, it is envisioned that there is at least one "corner" or "angle" alpha (α) which is as great as 90° or less, but preferably from about 15 to 50°, more preferably between 30 and 45° (angular degrees), however, the corners may be rounded up to and including a "C" shape. .In addition, there is at least one lens mounting member 150 which is structurally immobilized and produces, when paired with a flexible support member 190, a rounded "V"-shaped structure. It is envisioned that the flexible support member 190 can function as a lens mounting member 150,

allowing the lens to be attached directly to the flexible support member 190. The combination of the flexible support member 190 with the lens mounting member 150, produces a rounded "V"-shaped structure, the arms of which can be flexed during insertion through an incision in the eye 1. The arms of the rounded "V" shaped structure can include one flexible support member 190 and one lens mounting member 150, two flexible support members 190 or mixtures of the two. The flexible, rounded "V" shaped structure allows the haptic 110 to be inserted into a very small incision by bending the haptic elements (or arms) and, more specifically, by bending the flexible support member 190 of the "V"-shaped structure, up to or over, the structurally immobilized lens mounting member 150. However, the lens may also be snaked or moved into the eye without flexing the support members 190. The maximum dimension of each section along the length of the haptic 110, when bent, is less than the incision. The haptic can be temporarily bent up to about 1 to about 1.5 mm or up to about 3 mm as the frame is passed through the incision.

IN THE CLAIMS

Please insert the following claims:

220. **(New)** The multipart intraocular lens of Claim 1, wherein said optic is composed of a low modulus material.

221. **(New)** The multipart intraocular lens of Claim 1, wherein said haptic is composed of a high modulus material.